

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Withdrawn) An isolated polynucleotide encoding an MKK1 protein.
2. (Withdrawn) The isolated polynucleotide of claim 1 having the nucleotide sequence of SEQ ID NO:1.
- 3.-6. (Canceled)
7. (Withdrawn) A recombinant DNA vector containing a polynucleotide sequence that encodes an MKK1 protein.
- 8.-9. (Canceled)
10. (Withdrawn) An engineered host cell that contains the recombinant DNA vector of claim 7.
11. (Withdrawn) An antisense molecule containing a sequence complementary to at least a part of the coding sequence of an MKK1 protein which inhibits translation of the MKK1 mRNA in a cell.
- 12-13. (Canceled)
14. (Currently amended) An isolated recombinant megakaryocyte protein tyrosine kinase 1, which has the amino acid sequence depicted in SEQ ID NO. 2 MKK1.
15. (Canceled)
- 16.-19. (Canceled)
20. (Currently amended) A fusion protein comprising megakaryocyte protein tyrosine kinase 1, which has the amino acid sequence depicted in SEQ ID NO. 2 MKK1 linked to a heterologous protein or peptide sequence.

21.-22. (Canceled)

23. (Withdrawn) A monoclonal antibody which binds to an epitope of MKK1.

24.-25. (Canceled)

26. (Withdrawn) A method for producing recombinant MKK1 comprising:

(a) culturing a host cell transformed with the recombinant DNA expression vector of claim 7 and which expresses MKK1; and

(b) recovering the MKK1 gene product from the cell culture.

27.-28. (Canceled)

29. (Withdrawn) A method of inhibiting the effects of signal transduction by an endogenous MKK protein in a cell comprising delivering a DNA molecule encoding a signalling incompetent form of the MKK protein to the cell so that the signalling incompetent MKK protein is produced in the cell and competes with the endogenous MKK protein for access to molecules in the MKK protein signalling pathway which activate or are activated by the endogenous MKK protein.

30. (Withdrawn) The method of claim 29 wherein the DNA molecule encoding a signalling incompetent form of the MKK protein is delivered to the cell by a viral vector.

31. (Canceled)